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ABSTRACT

The need for cognitive style mapping and student grouping in order to enhance learning and retention in foreign language instruction is examined. The four components of classical audio-lingual language instruction, listening, speaking, reading, and writing, are discussed. Different learning modalities are considered, including visual, auditory, cultural, and inferential. Auditory visual style mapping is viewed as a useful teaching device in successful language learning based on audiovisual approaches. The principles underlying suggestive-accelerative learning, or suggestopedia, are enumerated. The characteristics of cognitive and intuitive learning are differentiated. An audiolingual approach which requires student grouping for better language acquisition and retention is contrasted with the suggestopedia approach. It is noted that the logistics involved in implementing suggestopedic programs in the West (they have generally been used in the Soviet Block countries) are difficult. Nonetheless, a great deal of educational and linguistic literature supports this new pedagogy. In addition, discoveries in such fields as brain research, parapsychology, musicology, hypnosis, and biochemistry provide encouragement for the implementation of suggestopedia. (RW)

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# COGNITIVE LEARNING STYLES IN "TRADITIONAL" AUDIO-LINGUAL AND SUGGESTOPEDIC LANGUAGE INSTRUCTION


## Abstract

A discussion on the need for cognitive style mapping and student grouping in order to enhance learning and retention in foreign language instruction.


Paper presented at the 15th International Colloquium of AIMAV (Association International pour la Recherche et la Diffusion des Methodes Audio-Visuelle et Structuro-Global), University of Nijmegen, The Netherlands, September 7, 1983

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## TRADITIONAL AUDIO-LINGUAL INSTRUCTION AND COGNITIVE LEARNING STYLES

Audio-lingual language instruction is often offered in four steps: listening, speaking, reading, and writing -- a revolt against the classical grammar/translation approach. One could argue that since language is primarily a spoken phenomenon, learning by ear is a necessary prerequisite for language mastery. However, the generation of learners that has been raised on multimedia stimuli will do better with audio-visual classroom presentations rather than with audio drills alone. For this group of learners, sets of visual learning tools -- videotapes, slides, cards, films, and so forth -- are essential for successful language mastery.

One must however, consider yet another important learning variable which has been discussed by various language pedagogues during this past decade, referred to as individualized learning and/or individual cognitive learning styles, or modes (Bernstein 1974, Berwald 1974, Hammerly 1975, Hubbard 1975, Schachter et al. 1976, Loew 1977, Briere 1978, Cooke 1978, and Stevick 1980, 1981). Despite an interest in individualized learning noted in professional literature,[1] very little evidence exists that an approach based on learning styles is being used on a wide scale. In most language classes, students are sent to language laboratories (and thus deprived of visual stimulation), or bombarded with visuals mainly on the basis of one criterion only: the instructor's personal preference for a certain teaching style which controls all class activities while students' learning modes are chiefly ignored.

Yet, there is a diversity of cognitive modes which affect language acquisition in a multitude of ways. They must be identified through

pre-instructional diagnostic tests in order to establish a basis for cognitive-style grouping of students. One such test battery was developed by Joseph Hill (1979) as a basis for grouping students in general education courses. Although his test was not aimed at language learners specifically, its basic classifications are appropriate for language classes as well.[2] The set of questions used to determine the students' preferred learning modes and attitudes toward others in general is simple, clear, and non-threatening. On the basis of the answers elicited from the students, they are grouped within the following categories: (a) visual versus auditory; (b) cultural, and (c) inferential.

The visual/auditory set is composed of:

1. Theoretical auditory and quantitative auditory learning modes, and
2. Theoretical visual and quantitative visual learning modes.

It is reasonable to assume that the student who learns primarily through auditory sensors will learn better with the printed word withheld until the mastery of the sound system of his target language is achieved, certainly for those languages whose letter-to-sound correspondence is complex, e.g., French, English, Japanese, and Chinese. Conversely, the student who relies on visual signals (or visual and auditory), will do better with the listening and reading phases offered simultaneously. Unfortunately, most of the "traditional" audio-lingual classes, true to their name, are geared to the auditory learner. Style mapping and student grouping could enhance audio-lingual instruction and satisfy both the auditory and visual learners.

Another set of learning modalities is cultural; it deals with the students' personal attitudes and characteristics, as well as their reactions toward authority. The categories comprising this set are as

follow:

1. Degree of influence by associates (other than family)
2. Degree of influence by family, church, and authority figures
3. Independence in decision making

Cultural modalities should be taken into account at least in three activities: (a) in assigning certain tasks to individual students; (b) in grouping students into learning teams and (c) in evaluating performance and progress. The logistics of task assignment could be made easier by the recognition of the above-given cultural categories. For example, both the first and second group will do better in teams while the student with a well-developed sense of independence (group 3), will most likely prefer individual work. He will be satisfied with working at his own pace, as in programmed instruction or the unmonitored language laboratory. The same student, however, might question the instructor's opinions and requests, class procedure, or even the value of the course itself. Once the cultural modes are understood and taken into account by both the student and the instructor, the class dynamics could be improved.

The third set of learning styles, that of modalities of inference, deals with the way we learn through logical operations of the brain. Whereas some of the learning modes could (if needed) be modified to a certain degree in some students, modalities of inference are based on deeply-ingrained learning behavior, resistant to modifications. We learn how to learn early in childhood, and tend to retain our own logical processes throughout adulthood. This set of modalities includes the following categories:

1. Categorical reasoning
2. Reasoning by differentiation

3. Reasoning by analogy

4. Reasoning by a combination of the above categories

5. Reasoning by deduction

Short of using different sets of materials and techniques for each given modality of inference, individualized instruction (on the basis of variable logical operations), is simply wishful thinking on the part of a well-meaning but powerless language instructor, since by its very nature, the audio-lingual approach is rather rigid and mono-modal. The student is expected to learn through analogy from dialogues and structured drills while the differentiation mode is used only sporadically, and then mostly in phonological drills. Whereas student grouping by modalities of inference seems impractical in audio-lingual classes, one must understand that individual learning modes affect performance, that is, some of the learners will stagnate in a mono-modal class.

Several suggestions are put forth by Marion Neil (1979) who feels that a switch from one modality to another, the one prevalent in a given class, can be accomplished (when needed) by assigning individual tasks based on different learning modes during the first six weeks, and then gradually "weaning" the student from his preferred mode of learning. Neil also proposes a special test for the student who learns through three different modalities (reasoning by categories, by differentiation, and by analogy) since this particular learner will be most likely slow and unable to cope with time limits built into certain types of tests.

In sum, while certain considerations should be given to cultural and inferential cognitive styles, auditory/visual style mapping is a useful teaching device in successful language learning based on audio-visual approach.

## SUGGESTOPEDIC LANGUAGE INSTRUCTION

Suggestive-accelerative learning, or suggestopedia, conceived by Georgy Lozanov of Bulgaria, is based on the following principles:[3]

1. The teacher is the figure of authority, subject and personality-wise.

2. The student is transposed to a state of infantilization. He is receptive, non-critical, likes to fantasize, immitate, and impersonate without feeling ridiculous. He repeats new sounds and structures readily. He is happy, relaxed, and relies on the father image of his instructor. To achieve this state, the student is deprogrammed through stress-relieving sessions of five-to-twenty minutes duration during which he listens to Baroque musical selections while breathing deeply and rhythmically. These sessions remove or weaken all learning barriers -- logical, intellectual, emotional, and ethical -- programmed in our minds by our respective environments.

3. The induced relaxation, or pseudopassiveness, is accompanied by superior cerebral activity which in turn produces hypermnesia. The hypermnesic state greatly accelerates data acquisition and retention. According to Lozanov (1978), the hypermnesia mechanism probably extends directly to the motor functions and wider nerve structures of the brain, while the psychological mechanisms for overcoming learning barriers are embedded in the non-specific mental reactivity (not yet classified), or NMR.

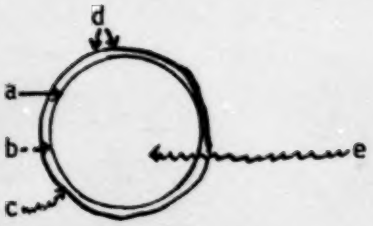
4. Synchronized music and rhythmic breathing place the student in alpha state by slowing the electrical activity of the brain. This state is associated with great mental receptivity to suggestions and with processing information instantly and intuitively, thus by-passing all cogni-

tive censorship exercised by sensory organs. Whereas in Western philosphy, the concept of intuition is viewed as the absence of reasoning, in Yogic doctrine (on which suggestopedia is partially based), intuition is considered a transcendent faculty of perception, direct and instantaneous (Tamimni 1974). Mircea Eliade (1970) reports on the superiority of intuitive versus cognitive learning which is slow since it molds the information received before presenting it to the intellect for further processing. The time spent on this evaluation of the input is tainted by personal biases (what Lozanov calls learning barriers), which must be removed either by a suggestion from without or, even better, by autosuggestion.[4]

5. The alpha brain is happy, euphoric, and playful: it is eager to learn, and it cooperates in creating positive class dynamics. The Lozanov Method has been tried in the United States, and there seems to be a widespread acceptance of suggestopedic stress-relieving activities (Roberts 1974). Philipov (1975) adds that suggestopedia releases a "flow of togetherness" that generates a positive attitude and hypermnesia in all students regardless of their individual cognitive learning styles. Cognitive styles then are inoperative in suggestopedic classes according to Lozanov and his followers.

The two types of learning, cognitive and intuitive, can be symbolized by the following diagram:

Cognitive learning




Intuitive learning

a/b/c - distorted perceptions

d - learning barrier

e - knowledge (indirect)

f - intuitive knowledge (direct)

## SUGGESTOPEDIA AND COGNITIVE LEARNING STYLES

Upon reflecting on what has been presented in Part II on intuitive learning, one might erroneously conclude that audio-visual stimuli are superfluous in suggestopedic classes. This assumption is negated by the very care with which audio-visual stimuli are incorporated into suggestopedic class designs.

During deprogramming sessions, auditory stimuli are essential, at least initially, to provide a lever that switches cognitive perception to another modality, that of intuition. Visual channels remain passive during this phase, often referred to by suggestopedic instructors as the passive concert. The students can and do listen to the music (with or without background lessons), with their eyes closed. Mentation, or visualization, is slowly activated (by a heterosuggestion or autogenically), and the learner begins to perceive information in images, in wholes rather than in a linear progression characteristic of cognitive data processing, slow and judgmental (Bayuk 1983).

Although visual stimuli are temporarily suspended in the passive concert, in the active concert, which may include reenacted dialogues, role playing, vocabulary drills, and so on, both visual and auditory stimuli are synchronized with these activities and with occasional background music. However, by the time the learner is ready to participate in an active manner, he is already free of all learning barriers and personal phobias. It can be said that he now maintains the homeostasis of emotional stability, tractability of behavior, intuitive learning mode, and supermnesia.

W. R. Ashby (1976) points out in Design for a Brain that although the living organism behaves in a purposeful and adaptive way, the brain resembles a machine in its dependence on chemical reactions, integrity of anatomical paths, and the precision with which it reacts to excitation from its environment. Thus the brain is both mechanistic and behavioristic. Moreover, according to Ashby, the direct intervention of consciousness is not necessary for adaptive learning. This can be interpreted as yet another piece of supportive evidence of Lozanov's assertion of the superiority of intuitive over cognitive learning. Lozanov has amply demonstrated that the induced alpha state generates certain chemical changes in the learner's brain which in turn trigger modified behavior conducive to better learning, in other words, a more positive homeostasis.[5]

The homeostatic balance (be it physical, emotional or mental) can be either positive or negative. Eric Lenneberg (1967) reports in Biological Foundations of Language that there is a critical point in the human lifespan when all linguistic operations are "locked-in" in the left hemisphere which processes information mainly through cognitive paths.

J. Williams (1950) suggests in The Principles of Psychology that we could indeed learn how to control homeostasis, or "point" the homeostatic balance in the direction of our choice by carefully selecting one thought over another, one emotion over another, and one behavior over another. In suggestopedic classes, the learner seems to be able to point his homeostasis in the direction suggested by his mentor/teacher while he (the learner) is in the altered state of consciousness, the alpha state. Infantilization helps him to regain the state of playfulness and freedom, and to counteract the locking-in into the cognitive paths of his habitual adult state. His logical operations are suspended while the subliminal, or intuitive mode takes over, oblivious to all learning differences governing cognitive processes. Hence style mapping and student grouping is superfluous in suggestopedic instruction. According to Lozanov, deprogramming evens up cognitive differences and conditions all types of students for receptivity.

## CONCLUSION

While suggestopedia dispenses with cognitive modalities (since learning mode is intuitive rather than cognitive), the audio-lingual approach calls for student grouping for better language acquisition and retention. Since such grouping is difficult, and at times impossible (as in the inferential mode), the audio-lingual approach in its present state is not realizing its full potential.

While the cultural modality is most likely applicable to both approaches, the ready acceptance of the authority figure in suggestopedic classes of the Soviet Block is reinforced by general sociocultural

attitudes common to the communist society. In the West, on the other hand, the authority figure often generates an adverse reaction from the student, negatively affecting his own performance as well as class dynamics. Here again, the audio-lingual approach suffers in comparison.

Both approaches have been extensively tested although suggestopedia is still on trial outside of the Soviet Block. The logistics involved in mounting suggestopedic programs in the West, and the sociocultural implication of the method's underlying philosophy are rather formidable. Although suggestopedia can yield significant results under certain conditions, it has yet to prove its large-scale applicability in non-communist environments.

Nevertheless, a great deal of literature can be found which explains (and supports) this new pedagogy not only from the educational and linguistic points of view, but also through discoveries in other fields -- brain research, parapsychology, musicology, Yoga, autogenics, hypnosis, and biochemistry. Suggestopedia has blazed the trail by synergizing outside data in its search for new ways in tapping human potential, and perhaps has been also instrumental in triggering a shift of emphasis from the method per se to the student as a whole human being -- a remarkable step forward toward a better educational environment.

Suggestopedia is more than a method. It is a multifaceted composite built on pedagogical universals such as avoidance of critical judgement, stress-free classrooms, freedom of choice in responding to a given stimulus, and alternation of active participation with silent, intuitive internalization of a linguistic system. Static methodologies of the past are nothing but ossified rituals that do not take into account what we know today about human learning.

## NOTES

1. Research on cognitive styles is much more comprehensive in respect to other disciplines; language instruction and cognitive styles experiments have yet to be developed.

2. J. E. Edwards, Director of an Auburn University research project on cognitive style mapping and selection of the Navy ROTC scholarship candidates, believes that cognitive style mapping will play an important role in future educational designs although his present project's aim is not to adapt instruction to the learner's cognitive style, but rather to pick out those candidates who will do well in a specific instructional design of a given program.

3. The emphasis of this paper is on the student and the way he acquires language mastery. Other important aspects of suggestopedia, such as the role of music, class atmosphere, and teacher training are not examined here.

4. An excellent discussion on autogenics can be found in Beyond the Biofeedback by Alyce and Elmer Green (1977).

5. A comprehensive survey of the latest research on brain and learning is given by Maya Pines in Brain Changers (1973).

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